KFUPM--Term 132(2014)

Math 201 Quiz # 1(a) Time: 20 minutes Date: 18-02-14

Name	ID #	Sr #	Sec.	Marks:- /8

Q 1. For the parametrized curve C: $x = \cos(\pi - t)$, $y = \sin(\pi - t)$, $\pi \leq t \leq 2\pi$, eliminate the parameter to find its Cartesian equation. Also sketch the curve and indicate the direction in which it is traced.

Q2. Find the length of the curve C : $x = \cos t + t \sin t$, $y = \sin t - t \cos t$, $-\frac{\pi}{2} \leq t \leq \frac{\pi}{2}$.

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Math 201 Quiz # 1(b) Time: 20 minutes Date: 18-02-14

Name	ID #	Sr #	Sec.	Marks:- /8

Q 1. Find the slope of the curve C: $x = \sqrt{3 - \sqrt{t}}$, $y = yt - \sqrt{t}$ at $t = 4$.

Q2. Convert the polar equation $r = cos\ \theta + sin\ \theta$ in Cartesian coordinate's equation and then sketch the graph of the resulting equation. Which points of axes are included in the plotted curve?

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Math 201 Quiz # 1(c) Time: 20 minutes Date: 18-02-14

Name	ID #	Sr #	Sec.	Marks:- /8

Q 1. For the parametrized curve C: $x = \cos 2t, y = \sin t, -\frac{\pi}{2} \leq t \leq \frac{\pi}{2}$, eliminate the parameter to find its Cartesian equation. Also sketch the curve and indicate the direction in which it is traced.

Q2. Find the area of the surface obtained by rotating C: $x = 3\cos t, y = 3\sin t, 0 \leq t \leq \frac{\pi}{3}$ about the x-axis.